

26 - Bringing Environmental Stewardship to the Classroom

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Audience: Current Active & Enrolled Students

Episode Transcript

Host Dr. Shipley Speaker: Hello everyone and welcome to Early Childhood Chatter with Dr. Shipley and Dr. Heald. We will upload a new episode every other week on Wednesdays.

Host Dr. Heald Speaker: Twice a month, we will come to you with a 10-minute professional development that you can quickly listen to for new ideas to use today.

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On today's episode, I am super excited to announce that we have Dr. Haleh Khojasteh with us today. Haleh has a PhD in Agriculture and Environmental Chemistry from the University of California, Davis, and is an associate faculty at the University of Arizona Global Campus teaching various courses in environmental science.

Haleh, I'm so excited to have you here today. Welcome.

Dr. Haleh Khojasteh Speaker: Thank you so much.

Thank you for having me.

Dr. Stephanie Heald Speaker: Yes. So today, Haleh is talking about bringing environmental stewardship to the classroom.

Haleh, can you tell us why this is your passion?

Dr. Haleh Khojasteh Speaker: Of course. Well, I always knew that I wanted to be an educator and going to school and studying environmental science and teaching environmental science, you know, where my passion for environment and environmental stewardship comes from. But when my daughter started school about 10 years ago, I wanted to volunteer.

So, I was very involved in her curriculum and in her classroom. And I realized, and being an environmental scientist, I knew about all the problems that we are facing and how much we need to all get involved to solve these problems. And I realized that I did not see any environmental stewardship as part of the curriculum.

So, I started talking to our teachers. Every year, I volunteered in class, and I talked to teachers to try to include some activities. Of course, back then, there were not that many resources.

So, I mostly used books. But I was very surprised to see how kids got excited and how kids wanted to get involved. So that's where my passion started to involve all the kids and see the difference they can make.

Dr. Tisha Shipley Speaker: That sounds perfect. Thank you so much for sharing that with us. So how do you bring this type of teaching into the early childhood classroom? If we have a listener on here that wants to do this, what are some tips and tricks? How do you suggest they do this?

Dr. Haleh Khojasteh Speaker: Of course.

Well, the whole idea here is to teach children that everything we do, everything we need on a daily basis, from the air we breathe to the food we eat, the computer we use, electricity we need, clothes, cars, everything comes from our natural world. So, we depend on it for everything, for our survival. Also, we want to let them know that everything that we do on a daily basis impacts the environment.

When we brush our teeth, for example, we are letting the water go. And that's the water that somebody else can use. Do we have to let it go like that? And everything else we get in our cars.

We want to go to school. We create some pollution that impacts the environment. So, we are all part of this system that is called ecosystem, that is called our planet.

And we depend on it for our survival. And we also impact it. We also want to let the children know that we can all, and we should all actually be part of the solution.

We can all make a difference. So, we want to empower them. We want to give them the confidence that we can solve our problems.

But we all have to take responsibility for it. We also want to let them know that they should and they can rely on nature. Because nature has a lot of solutions for a lot of the problems that we humans have created.

But we also, we need to rely on it. We need to look at nature for the solutions. And this is what our future generation is going to need a lot because they are going, we know, science tells us that we will have a lot of environmental problems.

So how are we going to make them understand all of this? In my opinion, the best way is to create a connection. We want to make them care. We want to create some lesson plans or activities, so they care about the environment.

Because when we care about something, we want to take care of it. We care about our family members. We care about our pets.

And taking care of them comes naturally. So that's the passion we want to create in our children as part of the education. So, I can give you some examples, of course.

Dr. Stephanie Heald Speaker: Yeah, Haleh, this is such, my wheels are spinning. I have so many questions for you. This is really great because it gives our youngest kiddos ownership in making a difference in the world, which is so completely powerful.

You mentioned activities and lesson plans, and I think you were going there. But can you tell our listeners a little bit more about some of the actual activities that they can set up for our youngest children to really kind of ensure that they are supporting environmental stewardship?

Dr. Haleh Khojasteh Speaker: Of course. What we can do, of course, depends on our school capability.

But in my opinion, every school, every preschool has to have a small garden. A garden actually provides a lot of teaching opportunities from how life starts, where life comes from, where food comes from. We start with soil.

We want to let children, especially young children, I think getting all their senses involved is a great way of connecting to what we want to teach them. So, we want them to touch the soil. We want them to see how life grows out of soil.

What we need to give it, plants, trees, all living organisms, like us humans. They all need air. They all need water.

They all need sun. So, we need to protect it. We need to take care of it so we can grow it.

And when they see fruits, when they use the fruits, it's such an exciting experience for them. We also need to, if we create a garden, it's great to look into the local ecosystem and find local plants that support the local wildlife, especially bees. We want to have bees in our garden to show them, to be able to talk about bees.

Why? Because bees are so important in our food production. If bees go extinct, if bees are not there for us, we won't have any food. That means we won't survive.

A composting bin can be a wonder. It is like magic for kids because you put your garbage in it and then you help. You have to rotate it every few days so the children can help rotate it.

And then after a few weeks, boom, the garbage is gone. And instead, we have soil. We have something that is alive.

We have something that we can use for production. This also shows them a life cycle, how life starts and where does it go. Everything goes back to Earth.

So, we all come from Earth, and we go back to Earth. This would be a great, great addition to any school. But if we can't do that, of course, just having a plant inside the classroom and having kids take care of it.

It could be actually a tomato plant, something that can fruit. So, the children can see how it grows, how we need to nurture it, how farming works, where our food comes from. Where our garbage goes.

So, all of these are great. If we can't do that, nature walks, going in the nature. And again, using all of our senses, closing your eyes and just listening to the nature.

Closing your eyes and just smelling nature, touching everything. I think that brings closeness to the nature. What I used when my daughter was very young was, of course, books.

Books are great resources because I believe in the power of storytelling. And they all have beautiful pictures, great stories. That would be a wonderful way to start a conversation.

I have found some books. Of course, I used different books at the time. But for very young kids, I found these books called, one is called I Am Earth.

And the other one is called *Thank You Earth*. This is for children three to five. So, the one in the Thank You Earth book talks about why we need to thank Earth.

Why? Because everything we need comes from it. I also used the book when my daughter was a little bit older. She was in third grade.

And this was very wonderful. It's called *Earth Day Hooray*. And it's actually a math book.

And it talks about a few kids who, for Earth Day, they decide to collect 5,000 aluminum cans so they can sell it and collect money and plant some flowers in their local park. So, the book teaches them math. It teaches them reading.

And it talks about different facts of recycling and why we need to recycle. There are books about saving water. There are books about saving energy.

A lot of educational resources on YouTube. I personally use YouTube a lot. My daughter also uses it for school.

A lot of very beautiful cartoons, very educational. So, a lot of resources that we can bring in the classroom. But the main point is to make nature part of our curriculum.

It can be part of our reading, singing, art, drawing, math, science. For older kids, of course, we can have more structured lesson plans, have some science activities. A very easy one would be to make solar ovens using pizza boxes.

This would be great, actually, a great activity for second and third grade kids. And it not only teaches them that they can be part of the solution, it teaches them about where energy comes from, how we can use nature to get non-polluting, clean energy. And at the end, they actually make marshmallows, and they eat it, and they actually see how it works.

So, a lot of activities that we can incorporate in our teaching for different fun.

Dr. Tisha Shipley Speaker: Those are such fun ideas, because I was going to ask you, what are some great ways to bring it into the classroom? But you've already told us that. So, I'll never forget in fifth grade, my science teacher had a compost outside of his classroom.

And then we also had a garden. So, we did exactly what you're talking about. And that is what sticks out to me in his class in fifth grade.

So, it is something that students remember and learn from also. So, thank you for sharing that. So how do you explain this to families? Do you bring them in for help? Are families involved in any way? How can teachers get families involved?

Dr. Haleh Khojasteh Speaker: Of course, it depends on school.

But educating parents or even sending kids home with assignments, with environmental stewardship assignments. For example, look at your garbage. How much of your garbage is plastic? And we talk about plastic.

Actually, I wanted to mention this very easy experiment. If we have a garden or even if we have a patch of soil, summer in school, we can bury a piece of plastic along with a piece of fruit, banana peel, for example. And then we market, and we let the children come and check every few months.

And they will see that the piece of fruit is deteriorating and it's going back to earth, but the plastic is still there. So, then we can talk about how long plastic lasts. Plastic lasts even after we are grandparents, even after none of us are here on earth.

So, what should we do with this plastic? This plastic is hurting a lot of animals in the ocean. So, then the kids get excited. I watched the video.

I was trying to get ready for this conversation. And I watched a video about an eco-school in Australia. And it seems like they are doing a lot in Australia.

And after doing all the activities, they send the kids home and they wanted them to collect garbage and talk about it, bring them in and talk about it. And the teacher was saying this cute boy carried a piece of plastic all the way from a vacation trip that he went to a different city, all the way with him in his suitcase so that he can bring it to school. And another kid was saying, oh, you know what? Next time I have my birthday party, I'm not going to have balloons because balloons are plastic.

Bubbles are even better. I'm going to have bubbles. So again, we can get the parents involved directly.

And that would be great because the more people we educate, the faster and the more effective our culture change is going to be, which is what we are going to need if we want to have a good future for our children. If we want our children to have all the resources that we have today. So, it would be great if we can involve them directly.

But indirectly, again, sending children home with assignments and talking to their parents and their families and getting them involved would also be a-

Dr. Stephanie Heald Speaker: I love that, Haleh because when we bring in those partnerships, again, it just gives them a piece of ownership and truly making a difference in something that really matters so much. It matters now and it matters in the future. My wheels are spinning with all your ideas and I'm super excited for how our listeners are going to perceive this when they hear it.

So, as we wrap up, can you please just give our listeners three quick takeaways that they can put into action right away?

Dr. Haleh Khojasteh Speaker: Of course. I think we need to let all of our educators, all our teachers know that we are at a time that we need to make some changes. Our natural resources are in pain, and we are the cause.

So, we want to be part of the solution. We know that we Americans have a very high footprint. We have a very high carbon emission, water resources use, consumption, and ecological footprint.

So, we need to incorporate these educational tools, these environmental stewardship and sustainability education in our classroom as soon as possible. And we need to create a culture change. So, we all become part of the solution.

Again, we need to tell children that we can be part of the solution, but we are all responsible. It might look small. What we do in our small classroom might seem small, but if we all do it collectively, then the change will be huge.

Dr. Tisha Shipley Speaker: Okay. So, as we leave, can you give us one challenge for our listeners that they can take away and do today?

Dr. Haleh Khojasteh Speaker: We do this exercise in one of the classes that I teach, and I see a lot of great feedback in the part of our assignment. There's a website called Footprint Calculator and when you go there, it's called footprintcalculator.org. And when you go there, you put in some information about your daily life, and it gives you what they call ecological footprint.

What's very interesting is that it tells you how many Earths are needed if everyone, everyone, all 7.6 billion people on this planet would want to live like you, would want to have a lifestyle like you. And in most cases, we Americans have three, four, five, sometimes even six planets. So, we know that we don't have that many planets.

So, what is the solution? It means that we are using the resources today that our future generations need to use as well. So, if you do this exercise, I challenge you to do this exercise and look at the differences that you make. At the end, they actually give you some solutions, something that you can implement very easily.

Some changes are so easy that you can implement in your life and then make a difference. In our classroom, we actually go back after five weeks. We ask students to implement those changes during those five weeks of class.

And then at the end, they go back to that exercise and recalculate their ecological footprint. And they realize that those small changes can actually make a difference.

Dr. Tisha Shipley Speaker: Wow, I love that.

I'm actually going to go to that website. I was excited to hear you talk about it. So, thank you so much for being here today.

We appreciate you so much. And thank you to all of our listeners. We hope this is going to bring a different perspective into your early childhood classrooms and have a great day.

And we will see you in a couple of weeks.